

Applicant: Derosier et al.
For: A COMMUNICATION DEVICE INTERVENTION
SYSTEM AND METHOD

1 1. A method of intervening between a wireless communication device and a
2 base station, the method comprising:
3 employing a receiver to scan for transmissions from multiple
4 surrounding base stations;
5 measuring the absolute field strength of all received transmission
6 and recording the information transmitted by the base stations;
7 setting the transmission power level of a transmitter to have an
8 absolute field strength greater than the highest measured absolute field strength detected
9 from a corresponding base station;
10 receiving an interface signal from a wireless communication device;
11 and
12 transmitting to the wireless communication device the corresponding
13 information to thereafter control the wireless communication device by establishing a
14 communication channel between the wireless communication device and the receiver and
15 transmitter instead of between the wireless communication device and a surrounding base
16 station to prevent use of the wireless communication device proximate the receiver and
17 transmitter.

1 2. The method of claim 1 in which the step of transmitting includes instructing
2 the wireless communication device to lower its transmission power so that transmissions
3 from the wireless communication device do not reach any corresponding surrounding base

4 stations.

1 3. The method of claim 1 in which the step of transmitting includes instructing
2 the wireless communication device to transmit at a frequency not recognized by any
3 corresponding surrounding base stations.

1 4. The method of claim 1 further including the step of keeping a record of all
2 interface signals and requests for service transmissions received from a wireless
3 communication device.

1 5. The method of claim 4 further including the step of polling the record to
2 track movement of a wireless communication device.

1 6. The method of claim 1 further including the step of providing an alarm
2 when a wireless communication device transmits a request for service transmission.

1 7. The method of claim 1 in which the step of transmitting includes instructing
2 the wireless communication device to undertake processes to remove itself from normal
3 communication with a cellular telephone service provider.

1 8. A method of intervening between a wireless communication device and a
2 base station, the method comprising:
3 employing a receiver to scan for transmissions from multiple
4 surrounding base stations;
5 receiving an interface signal from a wireless communication device;
6 and
7 transmitting to the wireless communication device the corresponding
8 information to thereafter control the wireless communication device by establishing a
9 communication channel between the wireless communication device and the receiver and
10 transmitter instead of between the wireless communication device and a surrounding base
11 station to prevent use of the wireless communication device proximate the receiver and
12 transmitter.

1 9. The method of claim 8 in which the step of establishing a communication
2 channel includes measuring the absolute field strength of all received transmissions and
3 recording the information transmitted by the base stations.

1 10. The method of claim 9 in which transmitting includes setting the
2 transmission power level of a transmitter to have an absolute field strength greater than the
3 highest measured absolute field strength detected from a corresponding base station.

TEEE' 000000

1 11. A communication device intervention system comprising:
2 an antenna;
3 a receiver responsive to transmissions received by the antenna;
4 a transmitter; and
5 a control module responsive to the receiver and connected to the
6 transmitter, the control module configured to:
7 measure the absolute field strength of all received
8 transmissions detected by the receiver from surrounding base stations,
9 record the information transmitted by the surrounding base
10 stations,
11 set the transmission power level of the transmitter to have an
12 absolute field strength greater than the highest measured absolute field strength
13 detected from a corresponding base station,
14 detect an interface signal received by the transmitter from a
15 wireless communication device in a predefined area proximate the receiver, and
16 transmit, at the set absolute field strength, the corresponding
17 information to the wireless communication device so that the system prevents use of
18 the wireless communication device in the predefined area.

1 12. The system of claim 11 in which the control module is further configured to
2 transmit to the wireless communication device a signal which instructs the wireless
3 communication device to lower its transmission power so that transmissions from the
4 wireless communication device do not reach any corresponding surrounding base stations.

1 13. The system of claim 11 in which the control module is further configured to
2 transmit to the wireless communication device a signal which instructs the wireless
3 communication device to transmit at a frequency not recognized by any corresponding
4 surrounding base stations.

1 14. The system of claim 11 in which the control module is further configured to
2 transmit to the wireless communication device to undertake to remove itself from normal
3 communication with a cellular telephone service provider.

1 15. The system of claim 11 in which the control module is further configured to
2 record all interface signals and requests for service transmissions received from a wireless
3 communication device.

1 16. The system of claim 13 further including a remote management unit
2 configured to poll the records of a selected group of control modules to track movement of
3 a wireless communication device.

1 17. The system of claim 16 further including a system computer responsive to
2 the remote management unit and configured to provide an alarm when a wireless
3 communication device transmits a request for service transmission.

1 18. A communication device intervention system comprising:
2 an antenna;
3 a receiver responsive to transmissions received by the antenna;
4 a transmitter; and
5 a control module responsive to the receiver and connected to the
6 transmitter, the control module configured to:
7 record the information transmitted by the surrounding base
8 stations,
9 detect an interface signal received by the receiver from a
10 wireless communication device in a predefined area proximate the receiver, and
11 transmit the corresponding information to the wireless
12 communication device so that the system prevents the use of the wireless
13 communication device in the predefined area.

1 19. The communication device intervention system of claim 18 in which the
2 transmitter has an adjustable power level.

1 20. The communication device intervention system of claim 18 in which the
2 control module is configured to measure the absolute field strength of all received
3 transmissions detected by the receiver from the surrounding base stations.

1 21. The communication device intervention system of claim 20 in which the
2 control module is further configured to set the transmission power level of the transmitter to

- 3 have an absolute field strength greater than the highest measured absolute field strength
- 4 detected from a corresponding base station.

- 1 22. The communication device intervention system of claim 21 in which the
- 2 control module is configured to transmit at the set absolute field strength.

For filing

24 a remote management unit linked to the plurality of control
25 units for polling the records of the control units to track movement of the
26 wireless communication device; and
27 a system computer responsive to the remote management
28 unit for providing an alarm when the wireless communication device
29 transmits a request for service transmission.

1 24. The system of claim 23 in which the remote management unit is linked to
2 the plurality of control units via AC power lines.

1 25. The system of claim 23 in which there are a plurality of remote management
2 units each linked to a subset of the control units and the system computer is linked to the
3 plurality of remote management units.

2025-03-06 10:00:00

1 23. A system for intervening between a communication device and a base
2 station, the system comprising:
3 a plurality of control units each having:
4 an antenna,
5 a receiver responsive to transmissions received by the
6 antenna,
7 a transmitter having an adjustable power level, and
8 a control module responsive to the receiver and connected to
9 the transmitter, the control module configured to:
10 measure the absolute field strength of a received transmission
11 detected by the receiver from surrounding base stations,
12 record the information transmitted by the surrounding base
13 stations,
14 set the transmission power level of the transmitter to have an
15 absolute field strength greater than the highest measured absolute field
16 strength detected from a corresponding base station,
17 detect and record an interface signal received by the receiver
18 from a wireless communication device in a predefined area proximate the
19 receiver, and
20 transmit, at the set absolute field strength, the corresponding
21 information to the wireless communication device so that the system
22 prevents the use of the wireless communication device in the predefined
23 area;